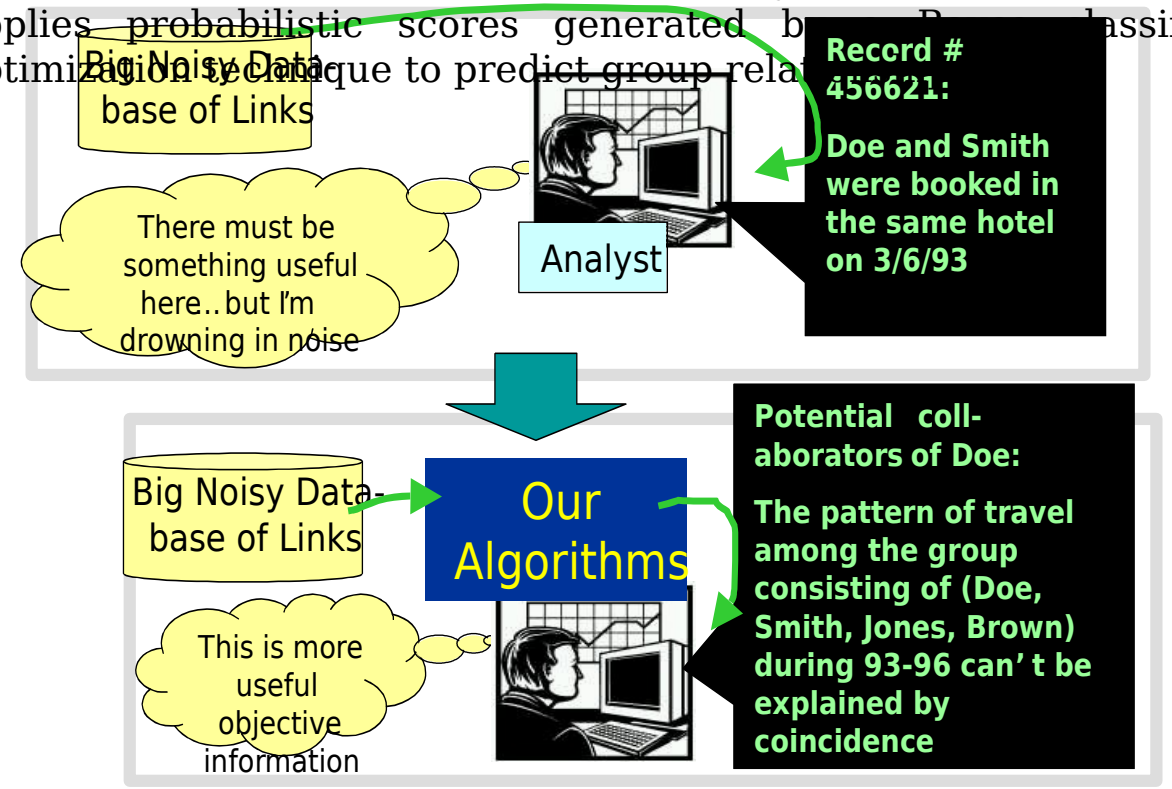
Stochastic Link And Group Detection

The goal of this research is to apply a probabilistic approach to discover and identify underlying structure (e.g. groups). For example we may want to extract groups of people who are working together from a log of all meetings that occurred in a city during a given time. With such groups, we could ask questions such as: list all members in a group, list all groups for which entity 1 and entity 2 are members, determine the missing entity given a partial link, determine if two entities are the same (aliases) or if one entity is two objects. The model takes the form of a Bayes network that captures the demographic data about entities and link information about entity transactions, meeting, etc. The model then applies probabilistic scores generated b[illegible] classifier and uses a heuristic optimization technique to predict group rela[illegible]



Before..

..After